Application No.: 09/755,204 Docket No.: 59097(30471)

LISTING OF THE CLAIMS:

- 1-81. (Canceled)
- 82. (New) A method of improving pregnancy rates in a non-human mammal, comprising:

culturing adult fibroblast donor cells in serum starved media;

passaging the cells between about 10 and about 15 passages; nuclear transferring the donor cells into enucleated recipient oocyte cells to promote cell fusion and embryo formation;

culturing nuclear transferred embryos in serum supplemented media to form blastocytes; and

transferring the blastocytes into a recipient non-human mammal wherein pregnancy rates are up to at least about 64% based on the number of embryo recipients.

- 83. (New) The method of claim 82 wherein the fibroblast cells are obtained from an aged non-human mammalian donor.
- 84. (New) The method of claim 83 wherein the aged donor is a bovine.
- 85. (New) The method of claim 83 wherein the aged donor is male.
- 86. (New) The method of claim 84 wherein the aged donor is 17 years old.
- 87. (New) The method of claim 82 wherein the serum starved media contains up to 0.5% serum.
- 88. (New) The method of claim 82 wherein the passaging is 10 passages.
- 89. (New) The method of claim 82 wherein the passaging is 15 passages.
- 90. (New) The method of claim 82 wherein the serum supplemented media is about 10% serum.

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91. (New) A method of preparing a long term fibroblast cell population, comprising: passaging donor fibroblast cells from an adult non-human mammal for about 10 to about 15 passages in serum starved media containing up to 0.5% serum; and selecting a population of cells identified as about 10-15 µm in diameter and smooth membrane surfaced wherein said cells comprise a long term fibroblast cell population exhibiting delayed senescence.

- 92. (New) The method of claim 91 wherein the donor cell is obtained from a male mammal.
- 93. (New) The method of claim 91 wherein the passaging is 10 passages.
- 94. (New) The method of claim 91 wherein the passaging is 15 passages.
- 95. (New) A method of preparing somatic cells having improved genetic totipotency, comprising:

successively culturing non-embryonic somatic cells in serum deprived media containing up to 0.5% serum for at least 5 passages prior to genetic manipulation of the cells.

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